

# Pipes and Fittings

## User's Manual

### Revision 1.0

#### INTRODUCTION

This is the documentation for the Pipes and Fittings experiment in the Unit Operations Lab. Control for this experiment comes from the [Bailey Net 90](#) computer system. Items to be entered into the computer are in **bold** type. QNX is a case sensitive operating system so commands must be entered as typed. Please read through all instructions before attempting to run the experiment.

#### I. EXPERIMENT HARDWARE SETTINGS

- 1) These are the start up valve settings.
  - a) Large tank ball valve, open.
  - b) Small tank ball valve, closed.
  - c) Loop bypass ball valve, closed.
  - d) Experiment gate valve, open.
  - e) Experiment ball valve, open.
  - f) Main tank return ball valve, open.
  - g) Main tank hose ball valve, closed.
- 2) Fill main tank with approximately 12 inches of water.
- 3) Turn the air on. Air valve is located on the east side of the pillar by the control valve.
- 4) Plug in the two plugs from the electrical connection box. The electrical box is located on the south side of the pillar by the control valve.

#### II. SHUT-DOWN PROCEDURES

- 1) Turn off the pump. (Refer to section II Pump Control.)

- 2) Disconnect electrical power. (Section I item 4.)
- 3) Turn off the air. (Section I, item 3.)
- 4) Use **F10** to exit control software menus and to return to the main menu.